EXHIBIT D

(REDACTED VERSION)

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MINNESOTA

IN RE: NATIONAL HOCKEY LEAGUE)
PLAYERS' CONCUSSION INJURY	
LITIGATION	
This Document Relates to: ALL ACTIONS) MDL No. 14-2551 (SRN/JSM))

SUPPLEMENTAL DECLARATION OF JENNIFER FINKEL, M.D.

- I, Jennifer Finkel, M.D., under penalty of perjury, hereby make the following declaration:
- 1. My name is Jennifer Finkel, I am over the age of 18, and I am competent to make this Declaration.

Professional Background

- 2. I am a psychiatrist and have practiced psychiatry for 16 years. I am board certified in general psychiatry (4/2008, recertified in 2015) and psychiatry of the medically ill (psychosomatic medicine) (10/2005, recertified in 2015).
- 3. I am dually appointed as an Assistant Professor in the Departments of Psychiatry and Neurology at the Icahn School of Medicine at Mount Sinai. Since January of 2016, I have served as the Director of the Consultation Liaison Service in the Department of Psychiatry at the Icahn School of Medicine at Mount Sinai and Mount Sinai Hospital. I served as Associate Director of this service from 2008 to December of 2015. I am also the primary psychiatric consultant to Mount Sinai's Corinne Goldsmith Dickinson Center for Multiple Sclerosis (2005-present).

- 4. I graduated from the State University of New York Downstate Medical Center in 2000 and completed a residency in psychiatry at the New York University School of Medicine in 2004. I completed a one-year fellowship in Psychosomatic Medicine, with a subspecialty focus in Multiple Sclerosis, at the Mount Sinai School of Medicine in 2005.
- 5. During the course of my career, I have evaluated thousands of patients. I currently run a clinical service at the Mount Sinai Hospital, which specifically addresses psychiatric issues in the medically ill. I conduct research and give academic lectures, including Grand Rounds regarding multiple sclerosis, neurologic illness, chronic medical illness, ethics, psychopharmacology, and psychological reaction to illness, among other areas.
- 6. I have written three peer-reviewed articles, which were published in *The Mount Sinai Journal of Medicine*, *CNS Spectrums* and the *Journal of the Academy of Child and Adolescent Psychiatry*, respectively. I have also written chapters in psychiatric textbooks and handbooks pertaining to psychiatric issues in the medically ill. A copy of my Curriculum Vitae, which includes a list of publications I have authored in the last 10 years, is attached as Ex. A. I have not testified in any cases as an expert at trial or by deposition in the past four years.

Engagement

7. I was engaged by Skadden, Arps, Slate, Meagher & Flom, LLP, on behalf of the National Hockey League, the defendant herein, to conduct individual psychiatric evaluations of the proposed class representative plaintiffs in this litigation and to provide

an expert psychiatric opinion and report setting forth my opinions based on those evaluations, as well as my evaluation of plaintiff fact sheets and other discovery produced in this case.

- 8. I am being compensated at a rate of \$500 per hour for my work on this case.
- 9. All of the opinions expressed herein are based on my specialized knowledge and expertise, are offered to a reasonable degree of scientific certainty, and are consistent with opinions that I would offer in my clinical practice.

Overview Of The Proposed Classes And Neurological Injuries At Issue

- 10. It is my understanding that plaintiffs in this lawsuit seek to represent two subclasses of retired NHL players.¹ The first subclass consists of "[a]ll living Retired NHL Players."² The members of this proposed class seek medical monitoring.
- 11. In support of their medical monitoring claims, plaintiffs allege that "repeated blows to the head can lead to [Neurological Diseases, Disorders, or Conditions]" through "theorized cellular and subcellular effects on the brain." They further assert that the "average [retired NHL] player sustained enough neuronal strain and damage through head impacts in a single NHL game to place them at a permanently increased risk of developing a Neurological Disease, Disorder, or Condition."

See Mem. of Law in Supp. of Pls.' Mot. for Class Certification and for Appointment of Class Representatives and Class Counsel at 29 (ECF No. 640).

² Id. at 29.

³ *Id.* at 13.

⁴ *Id.* at 1.

- 12. Plaintiffs contend that all retired NHL players are entitled to "a unified monitoring program funded by the NHL "to test for symptoms of early-onset [Neurological Diseases, Disorders, or Conditions], that also contains provisions for research, an epidemiological study of Retired Players, and information sharing."⁵
- 13. The second proposed class consists of "[a]ll Retired NHL Hockey Players (or representative claimants if they are deceased) who have been clinically diagnosed with [a Neurological Disease, Disorder, or Condition]." The phrase "Neurological Disease, Disorder, or Condition" is expressly defined to "include[] ALS, Alzheimer's, Parkinson's, CTE, Frontotemporal Dementia, Lewy Body Dementia, Parkinson's Dementia, and other neurodegenerative disease or conditions, as well as any cognitive, mood, or behavioral conditions where such conditions arose after retirement from the NHL." As I understand it, these plaintiffs are seeking to recover damages from the NHL as a result of their alleged conditions.

Summary of Opinions

- 14. As I explain in more detail below, I hold the following opinions that are relevant to plaintiffs' claims. I hold these opinions to a reasonable degree of medical certainty.
 - (a) My evaluation of the named plaintiffs and of discovery submitted in this litigation reveals that the symptoms alleged by the named plaintiffs and

⁵ *Id.* at 48.

⁶ *Id.* at 1.

⁷ *Id.* at 1 n.2.

- other retired players are nonspecific and have many potential causes, and it is my opinion that one cannot presume that these symptoms are the direct result of hits to the head.
- (b) The symptoms reported by the named plaintiffs and other retired NHL players are those that would, and should, be addressed and evaluated using a typical psychiatric evaluation in the ordinary course of each individual's medical care. I would not recommend the full battery of neurological, neuropsychological, blood and magnetic resonance imagery testing sought by plaintiffs here for patients reporting many of the symptoms reported by the name plaintiffs because, without an expert's comprehensive evaluation of each player's unique clinical presentation, it would be premature and scientifically unfounded to presume that symptoms are directly attributable to head trauma and that these tests would be medically indicated.
- may harm, individuals whose symptoms are the result of causes other than hits to the head. Indeed, suggesting to retired players that their symptoms are the result of past head injuries could discourage them from addressing other causes of their symptoms, including substance abuse and other psychosocial factors. It is my opinion that the usual standard of care paradigm (i.e. regular follow up with a primary care physician, who can evaluate the patient, and arrange for specialty consultant referral, if

- warranted by the individual's specific clinical presentation) should be upheld in this group of patients.
- (d) The MRI component of the suggested monitoring program is particularly problematic as this kind of testing often leads to unexpected "incidental findings," which can be unintentionally discovered on imaging sequences, despite lacking any relationship to the medical condition for which the testing was originally sought. Of greatest concern is the risk of false positive findings, which can cause extreme anxiety and result in unnecessary testing.

The Symptoms Alleged By The Named Plaintiffs And Other Retired Players Have Many Potential Causes Unrelated To Head Injuries.

variety of factors related to the patient's biological, emotional, and socio-economic state and cognitive abilities. Based on my review of materials related to this litigation, my examination of the named plaintiffs and my review of plaintiff fact sheets submitted by other retired hockey players involved in this litigation, it is my understanding that the proposed class members claim that a variety of psychological and behavioral symptoms are directly attributable to head injuries sustained during their time playing hockey for NHL teams. Specifically, these retired players claim psychological symptoms such as irritability, change of personality, sleeping problems, memory loss, inability to concentrate, mood swings, anxiety, confusion, aggression, paranoia, impulse control problems and severe depression. All of these symptoms are nonspecific in nature, and

may have multifactorial causes. Therefore, it would be premature and scientifically unfounded to presume that previous head hits are the source or cause of such symptoms without a comprehensive evaluation of the patient's unique medical, psychological and social profile.

- 16. Many of the cognitive symptoms described by the plaintiffs are commonly associated with the normal process of aging and may have no other acute "cause." Perhaps the most common cognitive complaint among middle-aged and older adults is change in memory, and this may relate to slowed processing speed, reduced ability to ignore irrelevant information and decreased use of strategies to improve learning and memory. Additional cognitive domains, such as conceptual reasoning and processing speed, have a likelihood of declining gradually over time.
- 17. Other symptoms described by the plaintiffs may arise from a variety of causes wholly unrelated to head hits. For instance:
 - Depressed mood is a common symptom of a wide variety of conditions,
 including but not limited to a variety of personality disorders, substance-induced mood disorders, medical conditions (such a hypothyroidism, heart

Luszcz MA, Bryan J. *Toward understanding age-related memory loss in late adulthood*. Gerontology. 1999;45:2–9; Darowski ES, Helder E, Zacks RT, Hasher L, Hambrick DZ. *Age-related differences in cognition: the role of distraction control*. Neuropsychology. 2008;22:638–44; Isingrini M, Taconnat L. *Episodic memory, frontal functioning, and aging*. Revue neurologique. 2008;164 (Suppl 3):S91–5; Davis HP, Klebe KJ, Guinther PM, Schroder KB, Cornwell RE, James LE. *Subjective organization, verbal learning, and forgetting across the life span: from 5 to 89*. Experimental aging research. 2013;39:1–26.

Harada CN, Natelson Love MC, and Triebel K. *Normal Cognitive Aging*. Clinics in geriatric medicine 29.4 (2013): 737–752. *PMC*. Web. 5 Feb. 2017.

disease, pain, pancreatic and other types of cancers, lupus, neurological conditions such as stroke, infection, or tumor, certain medications (e.g., steroids), post-traumatic stress disorder, or as an adjustment to a particularly difficult life stressor. Depression, as a diagnosed medical condition, is generally known to have a number of risk factors, such as family history of depression, alcoholism, drug abuse, negligent/traumatic childhood, serious or chronic medical illnesses or traumatic or stressful life events.

- Research has demonstrated that depression often follows a disturbing change in one's interpersonal environment. Significant life upheavals such as interpersonal relationship strain or loss, major career moves and critical transitions in one's previously identified roles (role transitions), have all been implicated in the genesis of a possible depressive episode. A specific psychotherapeutic intervention, "Interpersonal Therapy," explicitly addresses these kinds of depressed patients, by highlighting the practical link between the patient's mood and disturbing life events, assisting the patient in mourning the loss of his or her old role, and ultimately helping the patient accept and adapt to his or her new current role. ¹⁰
- Professional athletes may receive very significant psychological ego validation through their employment via fame, financial remuneration, admiration and an elevation in social status. The major role transition for a professional athlete

Markowitz JC, Weissman MM. *Interpersonal psychotherapy: principles and applications*. World Psychiatry. 2004;3(3):136-139.

from full employment to the contrasting anonymity and unstructured life of a retiree can impose significant psychological and emotional burdens, as it requires a shift in the interpretation of one's previously defined identity.¹¹

- It has been suggested that retiring athletes are particularly vulnerable for depression and other psychopathology, and it has been reported that athletes may experience depression, identity crises, alcohol/substance abuse, decreased self-confidence, and eating disorders following retirement.¹²
- Sleeping problems may be caused by a number of different conditions, including depression, bipolar disorder, anxiety, acute stress reaction, post-traumatic stress disorder, asthma or other pulmonary issues, obstructive sleep apnea, restless legs syndrome, anemia, drug use, certain medications and various thyroid conditions. Sleeping problems can also be a reaction to chronic physical pain, such as that caused by acute physical injuries sustained by the plaintiff (i.e., orthopedic and other injuries), or by other chronic pain conditions.

Lotysz, GJ, & Short, SE (2004). 'What ever happened to ...?' the effects of career termination from the National Football League. Athletic Insight: Online Journal of Sport Psychology, 6(3), http://www.athleticinsight.com/Vol6Iss3/WhatEver Happened.htm; and Lavallee D & Robinson H (2007). In pursuit of an identity: A qualitative exploration of retirement from women's artistic gymnastics. Psychology of Sport and Exercise, 8, 119–141.

Brewer B, Van Raatle J & Linder D (1993). *Athletic identity: Hercules' muscles of Achilles heel?*, International Journal of Sport Psychology, 24, 237–254; and Wylleman, P., Alfermann, D., & Lavallee, D. *Career transitions in sport: European perspectives*. Psychology of Sport and Exercise, 5(1), 7–20 (2004); Cosh S, Crabb S & LeCouteur A (2013), *Elite athletes and retirement: Identity, choice, and agency*. Australian Journal of Psychology, 65: 89–97. doi:10.1111/j.1742-9536.2012.00060.x.

- Poor concentration may also have multifactorial causes, including depression, attention deficit hyperactivity disorder, anxiety, alcohol use, cocaine and other drug use, insomnia or fatigue, acute stress reactions, hypoglycemia and neurological issues (stroke, infection, tumor).
- Impulse control problems may be caused by substance-related disorders (e.g., substance intoxication, substance withdrawal, substance-induced mood disorder), neurodevelopmental disorders (including, but not limited to, intellectual developmental disorder, attention deficit hyperactivity disorder, autism spectrum disorder, specific learning disorders), bipolar disorder, disruptive, impulse-control and conduct disorders (e.g., oppositional defiant disorder, intermittent explosive disorder, conduct disorder), personality disorders (especially antisocial and borderline personality disorder), neurological conditions including infection, tumor, seizures or stroke, and acute stress reaction, post-traumatic stress disorder and grief.
- *Personality changes* also have a number of possible causes, including sleep deprivation, drug and alcohol use, drug withdrawal, anxiety disorder, Lyme disease, PTSD, brain tumor, seizures, stroke, thyroid conditions, depression and schizophrenia.
- 18. In light of the many possible causes of each of the psychological symptoms at issue, one cannot assume a simple cause and effect relationship, and state that any retired hockey player who experiences the aforementioned symptoms suffers from a neurodegenerative condition caused by head hits. Further, it would be profoundly

unscientific to assign one historical element, such as history of head impacts, as the only possible factor responsible for the totality of a clinical presentation or symptomatology. To the contrary, based on my comprehensive psychiatric evaluation and medical record review of four of the named plaintiffs in this case, as well as my review of fact sheets submitted by other retired hockey players, it is my strong opinion that the psychological symptoms experienced by these individuals are likely attributable to other psychosocial causes.

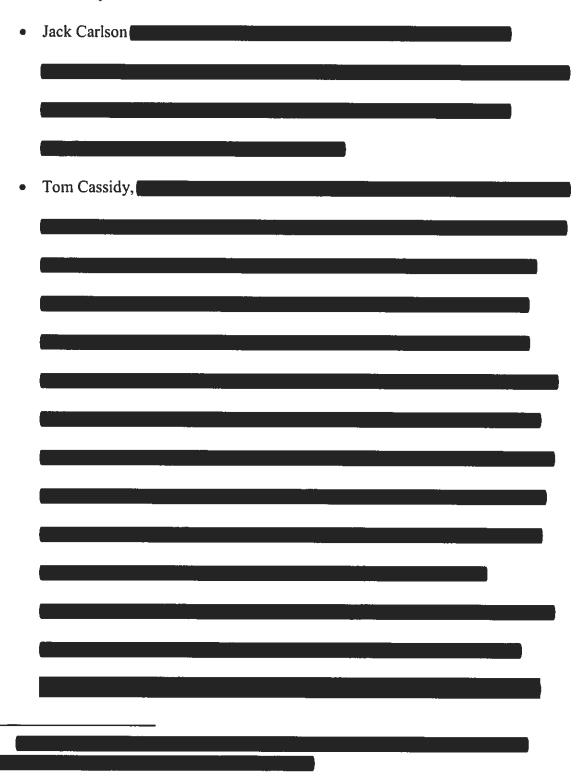
19.	For example, my independent medical examination of named plaintiff Dan
LaCouture ((as well as my review of his medical records), revealed
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20.	In addition, my examination of, and review of medical records pertaining
to, plaintiff	Gary Leeman revealed

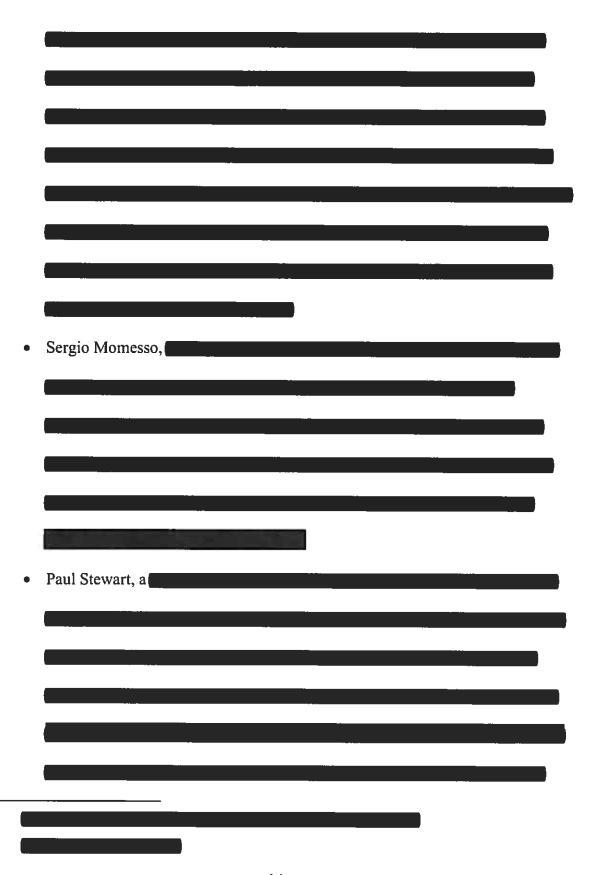
emotional states, and the particular individual's potential for being at risk for the development of a medical condition. Indeed, Mr. Leeman's SSD appears to have arisen in 2009 when he became aware – in connection with a worker's compensation case – of theories associating head trauma with the subsequent development of neurological disorders. Mr. Leeman's current anxiety, irritability and other symptoms can be explained by his SSD, which is exacerbated by both his regular and excessive alcohol use and psychological upheaval in reaction to his retirement from professional hockey and loss of a feeling of purpose.

21.	In addition, plaintiff Bernie Nicholls		
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22. My review of the fact sheets submitted by other retired NHL players involved in this litigation further supports the idea that the reported psychological

symptoms likely have causes other than head injuries sustained while playing professional hockey. For instance:

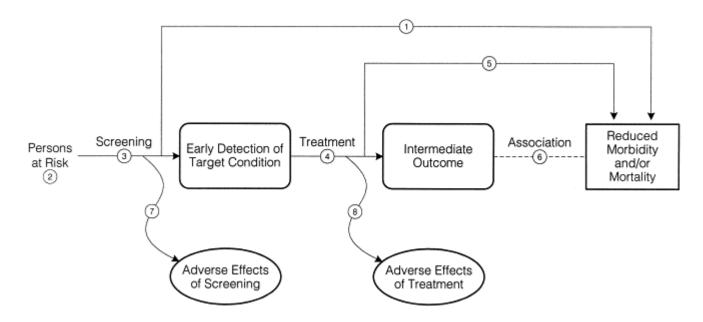




The Medical Monitoring Program Proposed By Plaintiffs Represents A New Clinical Practice Guideline, Which Lacks Supporting Scientific Evidence.

- 23. It is my understanding that plaintiffs propose a medical monitoring program that would include a comprehensive history and neurological examination, blood tests of pituitary function, a neuropsychological examination and a standard MRI with susceptibility weighted imaging with medial temporal lobe (hippocampus) volume averaging. This would propose a new clinical practice guideline for screening for concussion, mTBI (mild TBI), or neuropsychological functioning in retired athletes, and as such, I will discuss the way clinical practice guidelines are generally developed, and I will also discuss relevant clinical practice guidelines as they pertain to concussion, specifically.
- 24. The U.S. Preventive Services Task Force (USPSTF) is an example of a national organization tasked with creating evidence-based approaches to the development of clinical practice guidelines (for use by physicians) to prevent disease in "at-risk" persons. The USPSTF focuses specifically on screening tests, counseling interventions, immunizations, and chemoprevention delivered to persons without recognized symptoms or signs of the target condition. To date, the USPSTF has created screening recommendations for breast cancer, skin cancer and numerous other epidemiological

health concerns. The USPSTF utilizes an evidence-based approach that considers scientific evidence in making clinical practice recommendations. In determining final clinical guideline recommendations, efforts are made to link the strength of recommendations to the quality of scientific evidence; to make that linkage transparent and explicit; and to ensure that the review of evidence is comprehensive, objective, and attentive to quality. This process begins with a comprehensive scientific literature search and evaluation with detailed documentation of methods and findings. There is subsequent development of an "analytical framework" (as illustrated in the figure below), which demonstrates the "chain of logic" that scientific evidence must support in order to link the preventive service with improved health outcomes. These parameters are thoroughly investigated and analyzed prior to the USPSTF issuing any formalized clinical practice recommendation.



- 25. The numbers in the figure above refer to key questions as follows:
- (1) Is there direct evidence that screening reduces morbidity and/or mortality?
- (2) What is the prevalence of disease in the target group? Can a high-risk group be reliably identified?
 - (3) Can the screening test accurately detect the target condition?
 - (a) What are the sensitivity and specificity of the test?
 - (b) Is there significant variation between examiners in how the test is performed?
 - (c) In actual screening programs, how much earlier are patients identified and treated?
 - (4) Does treatment reduce the incidence of the intermediate outcome?
 - (a) Does treatment work under ideal, clinical trial conditions?
 - (b) How do the efficacy and effectiveness of treatments compare in community settings?
 - (5) Does treatment improve health outcomes for people diagnosed clinically?
 - (a) How similar are people diagnosed clinically to those diagnosed by screening?
 - (b) Are there reasons to expect people diagnosed by screening to have even better health outcomes than those diagnosed clinically?
- (6) Is the intermediate outcome reliably associated with reduced morbidity and/or mortality?
 - (7) Does screening result in adverse effects?

- (a) Is the test acceptable to patients?
- (b) What are the potential harms, and how often do they occur?
- (8) Does treatment result in adverse effects?¹⁷
- 26. The National Institutes of Health's Office of Disease Prevention also has an operationalized system in place to guide the creation of clinical practice guideline recommendations, which includes the following:
 - Identification of modifiable risk and protective factors for diseases/disorders/injuries;
 - Studies on assessment of risk, including genetic susceptibility;
 - Development of methods for screening and identification of markers for those at risk;
 - Development and evaluation of interventions to promote health for groups of individuals without recognized signs or symptoms of the target condition;
 - Translation of proven effective prevention interventions into practice;
 - Effectiveness studies that examine factors related to the organization, management, financing, and adoption of prevention services and practices; and
 - Methodological and statistical procedures for assessing risk and measuring the effects of preventive interventions.¹⁸
- 27. The International Consensus Conferences on Concussion in Sport were held specifically to create practical and evidence-based practice guidelines for the

https://archive.ahrq.gov/clinic/ajpmsuppl/review.pdf.

https://prevention.nih.gov/prevention-research.

management of concussion in sports. The Concussion in Sport Group (CISG) that meets at those conferences describes its operationalized "consensus process" online as consisting of scientific committee meetings, in-depth question development, expert panel discussions (both public and private) and systematic literature reviews, all of which are conducted prior to the publication of recommendations or a consensus statement. Of note, the 5th International Consensus Conference recently convened in October of 2016, and the updated consensus statement is expected shortly.

- 28. The above serve as examples of the rigorous and operationalized processes expert health and scientific organizations conduct prior to their recommendation of new clinical practice guidelines. The medical monitoring program the plaintiffs are proposing represents a new clinical practice guideline that is not supported by scientific evidence.
- 29. During the first quarter of 2013, several new or updated clinical practice guidelines and position statements were published on the diagnosis, treatment, and management of mild traumatic brain injury/concussion in sports. Three of these guidelines were produced by the American Medical Society for Sports Medicine, The American Academy of Neurology, and the CISG that met at the 4th International Consensus Conference on Concussion in Sport in Zurich (Zurich CISG). The goal of each group was to define current best practices for the definition, diagnosis, and acute and post-acute management of sports-related head trauma. There are no current agreed-upon recommendations pertaining to retired athletes who may have sustained head hits during their athletic careers. In terms of discussion and recommendations for possible long-term effects from sports-related head hits, "the groups vary in their discussion and

recommendations concerning long-term potential sequelae such as CTE and CNI (chronic neurological impairment), reflecting that there remains insufficient clinical or scientific evidence to conclude that concussion in amateur or professional athletes is linked in some way to specific chronic neurological sequelae." ¹⁹ The Zurich CISG elaborates that a cause and effect relationship has not been demonstrated between CTE and concussions *or exposure to contact sports*, as there are no published epidemiological, cohort or prospective studies relating to modern CTE. Their final conclusion regarding CTE is as follows: "Owing to the nature of the case reports and pathological case series that have been published, it is not possible to determine the causality or risk factors with any certainty. As such, the speculation that repeated concussion or subconcussive impacts cause CTE remains unproven. The extent to which age-related changes, psychiatric or mental health illness, alcohol/drug use or co-existing medical or dementing illnesses contribute to this process is largely unaccounted for in the published literature."

30. In May 2016, the Australian Institute of Sport made a similar statement: "There is currently no strong evidence clearly linking sport-related concussion with chronic traumatic encephalopathy (CTE)," explaining that the evidence linking sport-related concussion and CTE is comprised solely of case reports, case series and

West TA and Marion DW. Current Recommendations for the Diagnosis and Treatment of Concussion in Sport: A Comparison of Three New Guidelines. Journal of Neurotrauma 31.2 (2014): 159-168.

McCrory P et al., Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012, Br J Sports Med 2013;47:5 250-258 doi:10.1136/bjsports-2013-092313, http://bjsm.bmj.com/content/47/5/250.long.

retrospective analyses, none which can adequately determine causality or risk factors. Therefore, without prospective studies in live athletes, the group concludes that "no causal link has clearly been established." Further, this group warns that, "[d]ue to the nature of the condition and the reliance on retired athletes nominating to posthumously undergo autopsy as part of this research, there is significant bias in the samples."

31. Given the dearth of evidence-based research on CTE, the lack of any prospective studies on live patients thought to have CTE, and the lack of any tested paradigms regarding benefits of early detection and treatment in a group of retired athletes with a history of possible traumatic brain injury years prior to any clinical evaluation, it is my opinion that neither the scientific evidence nor logical framework for a thoughtful clinical practice guideline currently exists to justify the medical monitoring program that is being proposed by plaintiffs.

Clinical Context: Neuroimaging For Suspected Concussion

32. No specific imaging parameters currently exist for suspected sports-related concussion. The current recommendation from the American Academy of Neurology is for *selected* use of acute CT (Computed Tomography) scanning in pediatric and adult patients presenting acutely to emergency departments with mTBI. Further, the American Academy of Neurology recommends that CT scanning should *not* routinely be used to diagnose sports-related concussion, but may be employed to rule out more serious TBI

Elkington LJ, Hughes DC., *Australian Institute of Sport and Australian Medical Association position statement on concussion in sport*, Med J Aust. 2017 Jan 16;206(1):46-50, https://ama.com.au/sites/default/files/documents/ AMA AIS Concussion%20in%20Sport%20Position%20Statement%202015.pdf.

such as an intracranial hemorrhage in athletes with a suspected concussion who have loss of consciousness, post-traumatic amnesia, persistently altered mental status (Glasgow Coma Scale <15), focal neurologic deficit, or signs of clinical deterioration. ²² Of note, the American Medical Society for Sports Medicine and the Zurich CISG reiterate the recommendation that CT scans are not routinely recommended for sports-related concussions, but should be considered if there is clinical suspicion of intracranial hemorrhage or contusion.²³ The Centers for Disease Control and Prevention recommends that non-contrast head CT in head trauma patients is indicated only in specific acute settings where there is loss of consciousness or post-traumatic amnesia, and only if one or more of the following is present: headache, vomiting, age > 60 years old, drug or alcohol intoxication, deficits in short-term memory, physical evidence of trauma above the clavicle, post-traumatic seizure, GCS score < 15, focal neurologic deficit, or coagulopathy. The CDC also states that there is no evidence to recommend the use of a head MRI over a CT scan in acute evaluation.²⁴

33. The Defense and Veteran Brain Injury Center has created numerous concussion management algorithms for military personnel in deployed settings. Their recommendations regarding indications for imaging (CT) in the acute setting include:

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Giza CC, Kutcher JS, Ashwal S, et al. Summary of evidence-based guideline update: Evaluation and management of concussion in sports: Report of the Guideline Development Subcommittee of the American Academy of Neurology. Neurology. 2013; 80(24):2250-2257.

²³ West & Marion, *supra* note 19 at 159-68.

Centers for Disease Control, *Updated Mild Traumatic Brain Injury Guideline for Adults*, https://www.cdc.gov/traumaticbraininjury/pdf/tbi_clinicians_factsheet-a.pdf.

physical evidence of trauma above the clavicles, seizures, vomiting, headache, age > 60, drug or alcohol intoxication, coagulopathy or focal neurologic deficits.²⁵

34. Lastly, the Australian Institute of Sport released the following statement in May of 2016: "Medical imaging is not indicated in the diagnosis or management of uncomplicated concussion. Medical imaging may be indicated, however, where there is suspicion of more serious head or brain injury."²⁶

The MRI Component Of The Monitoring Program Proposed By Plaintiffs Will Identify False Positives And Incidental Findings Unrelated To Any History Of Head Hits.

35. Brain MRI is useful to aid in the diagnosis of several conditions, including strokes, brain tumors, infections, developmental anomalies, hydrocephalus, multiple sclerosis, cortical atrophy (that may be indicative of dementia), disorders of the pituitary gland and cerebral aneurysms. In traumatic brain injury, MRI may be employed specifically to rule out secondary brain bleeds or head injury complications that may ensue from a severe injury. "MRIs are virtually never used for mTBIs (mild traumatic brain injury)" and imaging is not used in the *clinical* arena to diagnose the mild traumatic brain injury itself.²⁷

Haydel MJ, Preston CA, Mills TJ, Luber S, Blaudeau E, DeBlieux PM. *Indications for computed tomography in patients with minor head injury*. N Engl J Med. 2000 Jul 13;343(2):100-5, http://www.dcoe.mil/content/Navigation/Documents/DCoE_Concussion_Management_Algorithm_Cards.pdf.

²⁶ Elkington LJ (2017), *supra* note 21 at 46-50.

Eierud C, Craddock RC, Fletcher S, Aulakh M, King-Casas B, Kuehl D & LaConte SM (2014). *Neuroimaging after mild traumatic brain injury: Review and meta-analysis*. NeuroImage: Clinical, *4*, 283–294. http://doi.org/10.1016/j.nicl.2013.12.009.

- 36. There has, however, been a growing *research* effort to better characterize structural and functional effects of a mild traumatic brain injury using more advanced neuroimaging techniques such as positron emission tomography (PET), single photon emission computed tomography (SPECT), magnetoencephalography (MEG), electroencephalography (EEG), and 12 subtypes of MRI, such as diffusion tensor imaging (DTI), magnetic resonance spectroscopy (MRS), arterial spin labeling (ASL) and functional magnetic resonance imaging (fMRI).²⁸
- 37. While the overwhelming majority of patients with mild brain injury will reveal no abnormality on MRI, when abnormalities are present, the most common findings are hemorrhagic cortical contusions (bruises), petechiae (pinpoint hemorrhagic areas), or foci of altered signal that reflect white matter shearing injury, which indicate injury to the nerve cell's axon.²⁹ Acutely, MRI can identify brain bleeds, swelling (edema) fractures and evidence of increased intracranial pressure, all of which may result from a severe injury.
- 38. Because it has not been proven that utilization of MRI in patients with traumatic brain injury would significantly alter acute management, it has not been recommended for the routine evaluation of these patients.³⁰

²⁸ *Id*.

Lee B & Newberg A (2005). *Neuroimaging in Traumatic Brain Imaging*. NeuroRx, 2(2), 372–383.

Ogawa T, Sekino H, Uzura M, Sakamoto T, Taguchi Y, Yamaguchi Y, et al. *Comparative study of magnetic resonance and CT scan imaging in cases of severe head injury*. Acta Neurochir Suppl (Wien) 55: 8–10, 1992; Kent DL, Haynor DR, Longstreth

- 39. The American Academy of Neurology's recommendation for head imaging in sports related-concussion is limited to very specific, serious cases, with the current recommendation being for CT, not MRI.³¹
- 40. Additionally, the American Academy of Neurology does not recommend MRI in routine evaluations of patients with known dementia or other neurodegenerative disorders, and further, it does not recommend MRI for the early detection of dementia or mild cognitive impairment in possible at-risk individuals.³²
- 41. MRI imaging as a tool for identification of early onset neurodegenerative disease poses several potential problems, particularly as it relates to issues of clinical relevance, false positives, and the significant occurrence of incidental findings reported on imaging studies. Scanning the brains of asymptomatic patients has become an increasingly controversial practice. A commentary in the Mayo Clinic Proceedings states, "[b]rain MRI screening of asymptomatic patients regardless of age, health, or medical

WT Jr, Larson EB. *The clinical efficacy of magnetic resonance imaging in neuroimaging*. Ann Intern Med 120: 856–871, 1994.

https://www.aan.com/Guidelines/Home/GetGuidelineContent/583.

http://tools.aan.com/professionals/practice/pdfs/dementia_guideline.pdf; Petersen RC, Stevens JC, Ganguli M, Tangalos EG, Cummings JL, & DeKosky ST (2007). *Appendix C: Practice parameter: Early detection of dementia: Mild cognitive impairment (an evidence-based review): Report of the quality standards subcommittee of the American academy neurology.* CONTINUUM Lifelong Learning in Neurology, 13(2), 222-231. DOI: 10.1212/01.CON.0000267233.84626.08; Petersen RC, Stevens JC, Ganguli M, Tangalos EG, Cummings JL, & DeKosky ST. *Practice parameter: Early detection of dementia: Mild cognitive impairment (an evidence-based review): Report of the quality standards subcommittee of the American academy of neurology, Neurology May 8, 2001 vol. 56 no. 9 1133-1142.*

history is an example of an ineffective screening program that would produce many inconsequential findings and an exceedingly low rate of clinically relevant findings."³³

- 42. The occurrence of unexpected incidental findings commonly encountered on MRI imaging is particularly challenging, as they pose significant clinical, ethical, legal, financial and psychological ramifications for the patient, and possibly, for the evaluating clinician. Incidental findings are best characterized as unintentionally discovered MRI findings, unrelated to the medical condition for which the test was originally intended, which may ultimately prove to be clinically relevant, or completely inconsequential. Because incidental findings have an unknown significance at the time of their discovery, they often engender the recommendation of a more laborious medical workup than was originally anticipated, which may confer additional financial and psychological distress for the patient.
- 43. Examples of incidental findings that might be encountered on brain MRI include: tumors (benign or malignant), aneurysms, white matter hyperintensities, evidence of stroke or prior bleeds, pituitary abnormalities, or an MRI "artifact."
- 44. MRI "artifacts" are visual imperfections in the scan itself that are not indicative of anything physiological or pathological in the participant, but which nevertheless may be difficult to distinguish from true pathological lesions. They are most commonly caused by the presence of foreign bodies in the patient, such as metallic or

Komotar RJ et al., *Brain Magnetic Resonance Imaging Scans for Asymptomatic Patients: Role in Medical Screening*, Mayo Clinic Proceedings, May 2008, Volume 83, Issue 5, pp. 563-565.

surgical implants, or they may result when a participant moves during the imaging procedure, leading to distortions in the final image.

- 45. The former Director of MRI Research in the Department of Psychiatry at Columbia College of Physicians & Surgeons suggests that the uncertainty upon the discovery of an incidental finding, combined with concerns about medicolegal liability from failing to identify a serious finding, "often predisposes radiologists to err on the 'safe side' by recommending further consultation."
- 46. Other academic articles draw attention to the problem of incidental findings pertaining to both their undetermined prevalence, and the potential for ambiguity in their interpretation, stating that "[w]e do not yet have an accurate estimate of the incidence" of incidental findings and as a result, investigators do not know what to expect in any given study. The author concludes, "[w]hen it comes to other imaging modalities, we have virtually no information on what is or is not normal, nor in some cases do we know how to interpret or read an IF."³⁵
- 47. The lack of established prevalence data regarding incidental findings on brain MRIs further complicates effective management strategies, as some studies report

Royal JM and Peterson BS (2008), *The Risks and Benefits of Searching for Incidental Findings in MRI Research Scans*. The Journal of Law, Medicine & Ethics, 36: 305–314. doi:10.1111/j.1748-720X.2008.00274.x.

Nelson CA. *Incidental Findings in Magnetic Resonance Imaging (MRI) Brain Research*. The Journal of law, medicine & ethics: A Journal of the American Society of Law, Medicine & Ethics 36.2 (2008): 315–213.

prevalences of 2.7%, ³⁶ or 14%, ³⁷ and others estimate rates of 5-20%, with clinically serious abnormalities from incidental findings estimated to be in the range of 0.3- 3.4%. ³⁸

48. Difficulties in estimating the actual prevalence of incidental findings in brain MRIs may be elucidated by the following table:

Published incidental findings in Brain MRI studies (1997-2010):³⁹

Study	n	Population	Brain MRI IF Rate	Surgical Referral Rate
Yue et al (1997)	3,672	Adult population aged > 65 y (mean age, 76.2 y)	NA	1.7%
Katzman et al (1999)	1,000	Healthy adults	18%	1.1%
Kim et al (2002)	225	Pediatric volunteers	21%	3.1%
Illes et al (2004)	151	Healthy adults	6.6%	2.0%
Tsushima et al (2005)	1,113	Adults (self-pay)	15.6%	1.3%
(2006)	2,536	(mean age, 20.5 y)	6.3%	0.6%
Vernooij et al (2007)	2,000	Adult population (mean age, 63.3 y)	13.6%	3.4%
Gupta and Belay (2008)	666	Pediatric clinic	25.7%	0.3%
Lee et al (2008)	2,164	Adult population (mean age, 51.8 y)	8.3%	2.5%

Morris Z et al. *Incidental findings on brain magnetic resonance imaging:* systematic review and meta-analysis. BMJ 2009; 339:b3016.

Vernooij MW, Arfan Ikram M, Tanghe HL, Vincent A, Hofman A, Krestin GP, Niessen WJ, Breteler MMB, and van der Lugt A. *Incidental Findings on Brain MRI in the General Population*, N Engl J Med 2007; 357:1821-1828 November 1, 2007.

Borra RJH & Sorensen AG (January 01, 2011). *Incidental Findings in Brain MRI Research: What Do We Owe Our Subjects?*. Journal of the American College of Radiology, 8, 12, 848-852.

³⁹ *Id*.

Study	n	Population	Brain MRI IF Rate	Surgical Referral Rate
Hartwigsen et al (2010)	206	Healthy subjects (mean age, 25.7 y)	19%	10.2%

- 49. More recent studies support earlier literature's findings of significant numbers of incidental findings encountered on MRI imaging. For example, one 2016 brain MRI study examined 5,800 participants and found an incidental findings prevalence of 9.5%, with 3% of participants requiring referral for further clinical work-up. 40
- 50. Even more recently, in January of 2016, "The HUNT MRI Study" was conducted, which systematically assessed the prevalence of incidental intracranial findings, the clinical impact of these findings and the number of false positives on brain MRI. Their 1,006-person (general population) sample of 50-66 year-olds revealed an incidental finding prevalence of 27.1%, with 15.1% of them ultimately demonstrating clinical relevance. While the true prevalence of incidental findings remains unclear, there is general agreement that their detection will likely increase in parallel with advances in imaging techniques. Researchers warn that without a clear understanding of the prognostic significance of many types of these incidental findings, "the optimal

Bos D, Poels MM, Adams HH, Akoudad S, Cremers LG, Zonneveld HI, Hoogendam YY, Verhaaren BF, Verlinden VJ, Verbruggen JG, Peymani A, Hofman A, Krestin GP, Vincent AJ, Feelders RA, Koudstaal PJ, van der Lugt A, Ikram MA, Vernooij MW. *Prevalence, Clinical Management, and Natural Course of Incidental Findings on Brain MR Images: The Population-based Rotterdam Scan Study.* Radiology. 2016 Nov;281(2):507-515. Epub 2016 Jun 23.

Håberg AK, Hammer TA, Kvistad KA, Rydland J, Müller, T. B., TB, Eikenes L, Gårseth M, Stovner LJ. *Incidental Intracranial Findings and Their Clinical Impact; The HUNT MRI Study in a General Population of 1006 Participants between 50-66 Years*. Plos One, 11, 3 (January 01, 2016).

response to such findings remains uncertain and in many cases an overly defensive approach is adopted, to the detriment of patient-care."⁴²

- 51. Given the significant occurrence of incidental findings on MRI, and the lack of agreement regarding both their interpretation and the handling of this information once discovered, it is crucial to consider the psychological impact an incidental finding might have on a patient's overall quality of life, as their discovery can prompt notification of a potentially serious or even life-threatening medical condition.

 Notification of an incidental finding coupled with subsequent follow-up recommendations can elicit psychological distress for a patient "because many individuals tend to assume the worst that the incidental finding in question represents a clinically serious abnormality. Participants thus may be exposed to the risk of anxiety and expense of various kinds, only to find that nothing is wrong with them." 43
- 52. Further, serious incidental findings, such as tumors or vascular malformations, "can instantly change the medical status of the subject, potentially affecting insurability and life expectancy, and often lead to the performance of additional tests or interventions with their own associated morbidity."

Gondrie MJA, Mali WP, Buckens CFM, Jacobs PCA, Grobbee DE, van der Graaf Y, *The Prognostic Value of unrequested Information in Diagnostic Imaging (PROVIDI)* Study: rationale and design. Eur J Epidemiol. 2010 Oct; 25(10): 751–758.

Royal JM and Peterson BS (2008), *The Risks and Benefits of Searching for Incidental Findings in MRI Research Scans*. The Journal of Law, Medicine & Ethics, 36: 305–314. doi:10.1111/j.1748-720X.2008.00274.x.

Borra RJH & Sorensen AG, What Do We Owe, supra note 38 at 848-852.

- 53. Despite the implicit psychological distress that can ensue following the identification of an incidental finding, there is a dearth of academic literature regarding this cause and effect relationship. However, one 2013 study that prospectively examined psychological distress in patients undergoing whole-body MRI revealed that 9.9% of study participants experienced strong psychological distress while waiting for potential notification of an incidental finding, and 28.6% of participants reported moderate to severe psychological distress after having been notified of an incidental finding. Further, throughout the study, the authors noted that there was a high rate of discordance between the subjective interpretation of the incidental finding as compared with the expert radiological interpretation, and that this further heightened subjective psychosocial stress for the participants.⁴⁵
- 54. Others have noted the need for further research examining the emotional and financial ramifications of false-positive findings for participants in MRI studies.⁴⁶
- 55. Given the potential for intense emotional response following the discovery of an incidental finding, most research institutions have formalized "Institutional Review Boards" that establish both firm protocols for informed consent for participants prior to involvement in any MRI study, as well as an operationalized process for the communication of incidental findings to study participants once identified. Risks of false

Schmidt CO, Hegenscheid K, Erdmann P et al. *Psychosocial consequences and severity of disclosed incidental findings from whole-body MRI in a general population study*. Eur Radiol (2013) 23: 1343. doi:10.1007/s00330-012-2723-8.

Royal JM and Peterson BS (2008), *The Risks and Benefits of Searching for Incidental Findings in MRI Research Scans*. The Journal of Law, Medicine & Ethics, 36: 305–314. doi:10.1111/j.1748-720X.2008.00274.x.

positive findings and the burden of medical follow-up are ongoing sources of debate in the pursuit of best practices for handling incidental findings, and there is currently no consensus as to the best handling of these issues, despite what some call an "urgent need for standardized guidelines regarding both minimal and optimal standards for the detection and communication related to incidental findings in brain MRI research."

- known challenges upon the initiation of any MRI study, and to extrapolate these challenges to a real-life clinical MRI monitoring program as suggested by the plaintiffs. An MRI monitoring program is not a simple undertaking, and there are likely to be unforeseen ethical, legal, medical, financial and psychological implications that would require the creation of sophisticated operationalized guidelines and management strategies prior to its inception. Lastly, no long-term, randomized, controlled trials have been conducted to quantify the harm versus benefit of early-detection screening for brain abnormalities. Without clear data about the frequency of incidental findings and with a lack of quantifiable research on potential harms such as unnecessary follow-up, screening with MRI brain scans should only proceed with clear scientific evidence demonstrating unequivocal benefits for its participants.
- 57. It would be inappropriate and medically irresponsible to subject asymptomatic retired NHL players to the proposed monitoring program. There would be no scientific indication for this type of intense neurological and neuropsychological

Borra RJH & Sorensen AG, *What Do We Owe*, *supra* note 38 at 848-852) (citing Illes J, Rosen AC, Huang L, et al., *Ethical Consideration of Incidental Findings on Adult Brain MRI in Research Neurology*, 62 (2004), pp. 888-890).

screening in a group of asymptomatic retired players, as this type of monitoring has never been described by any medical clinical practice guidelines to date.

58. In addition, because of the nonspecific and multifactorial causes of these types of symptoms, as well as the lack of any scientifically demonstrated precedent regarding such screening in retired professional hockey players, it would also be inappropriate to proceed first-line with intensive screening for players who do report these symptoms like those reported by the named plaintiffs. Rather, like all other men of their age, retired hockey players should see a primary care physician to address any medical concerns, and that physician should perform a comprehensive evaluation of the symptomatic patient and then determine whether the individual's specific clinical presentation warrants specialty consultant referrals, and if so, what sort of specialist is appropriate.

The Medical Monitoring Program Will Not Benefit, And May Harm, Retired Players Whose Symptoms Have Causes Unrelated To Head Injuries.

59. Because of the myriad causes of the psychological symptoms experienced by the named plaintiffs and other retired players, the medical monitoring program proposed by plaintiffs would not be beneficial in addressing those symptoms. To the contrary, enrolling all retired NHL players in such a program would likely be detrimental in that it would be based on the biased presumption that these nonspecific symptoms are secondary to an irreversible neurodegenerative disease. Such a presumption would heighten players' anxiety and potentially discourage them from seeking proper treatment for treatable conditions they erroneously attribute to head hits. As set forth above, alcohol

use, drug use and other psychological issues are common causes of many of the symptoms alleged in this litigation – and the medical histories of numerous plaintiffs strongly suggest that these factors are the critical ones responsible for the patient's overall symptomatology. If plaintiffs are led to believe from the outset, without any true medical evaluation, that their symptoms are due to brain injury during their time playing in the NHL and that they require monitoring for brain injury, other potential causes for the symptoms will not be sought, and the very treatment that may ameliorate or resolve the symptoms will never be discovered. In summary, without proper identification of the cause of the symptoms, proper treatment may be neglected, and the symptoms will persist.

60. Moreover, enrolling all retired NHL players in a monitoring program would incorrectly suggest to these former players that they are at high risk of a debilitating neurological condition. This would only exacerbate any psychological symptoms by increasing anxiety and depression. It is medically irresponsible to suggest to retired players who suffer from non-specific symptoms attributable to many possible causes — and, in some cases, no symptoms at all — that they likely have an irreversible brain injury. This is especially true considering that a number of former players struggle with substance abuse and pre-existing psychological conditions and may lack adaptive coping strategies, which can potentially lead them to engage in self-destructive behavior, such as increased alcohol and drug use in periods of extreme psychological distress.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 17th day of April, 2017 in New York, NY.

Respectfully submitted,

跃

Jennifer Finkel, M.D.

EXHIBIT A

CURRICULUM VITAE Jennifer M. Finkel, M.D.

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New York, NY 10019 Mount Sinai School of Medicine

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New York, NY 10029 Tel. (212) 659-8787

Email: Jennifer.finkel@mssm.edu

APPOINTMENTS/EMPLOYMENT

Academic Appointments

July 2008– Present Assistant Professor of Neurology, Department of Neurology, Icahn

School of Medicine at Mount Sinai, New York, NY

July 2004– Present Assistant Professor of Psychiatry, Department of Psychiatry, Icahn

School of Medicine at Mount Sinai, New York, NY

July 2004-July 2006 Clinical Fellow in Research, Department of Psychiatry, Icahn School

of Medicine at Mount Sinai, New York, NY

July 2004-July 2005 Clinical Fellow in Psychosomatic Medicine, Departments of

Psychiatry and Neurology, Icahn School of Medicine at Mount Sinai,

New York, NY

Hospital Appointments/Employment

1/16 -Present Director, Consultation Liaison Psychiatry Service, Department of

Psychiatry, Icahn School of Medicine at Mount Sinai, New York, NY

1/08-12/15 Associate Director, Consultation Liaison Psychiatry Service,

Department of Psychiatry, Icahn School of Medicine at Mount Sinai, New

York, NY

7/5-Current Attending Psychiatrist/ MS Psychiatric Consultant

Department of Neurology, Icahn School of Medicine at Mount Sinai, New

York, NY

7/14-9/15 Attending Psychiatrist, Jack Martin Fund HIV Clinic

Department of Infectious Disease, Icahn School of Medicine at Mount Sinai

New York, NY

7/13-7/14 Attending Psychiatrist, Internal Medicine Associates (IMA) Clinic

Department of Internal Medicine, Icahn School of Medicine at Mount Sinai

New York, NY

10/11-1/16/12 Acting Director, Consultation Liaison Psychiatry Service

Department of Psychiatry, Icahn School of Medicine at Mount Sinai

New York, NY

7/05-Present Attending Psychiatrist, Consultation-Liaison Psychiatry Service

Icahn School of Medicine at Mount Sinai

New York, NY

7/04- Present Attending Psychiatrist, Faculty Practice Associates

Icahn School of Medicine at Mount Sinai, New York NY

Specialty areas include: Multiple Sclerosis, Psychiatry in the Medically Ill, General Psychiatry, Bipolar Disorder, Pregnancy and Postpartum, Traumatic Brain Injury, Psychotherapy,

Psychopharmacology

7/04-7/10 Attending Psychiatrist, Psychiatric Emergency Service

Department of Psychiatry, Icahn School of Medicine at Mount Sinai

New York, NY

7/04-7/06 Fellow, Clinical Research

Department of Psychiatry, Icahn School of Medicine at Mount Sinai New

York, NY

7/04-7/05 Fellow, Consultation-Liaison Psychiatry Service and Corinne

Dickinson Center for Multiple Sclerosis

Department of Psychiatry and Neurology, Icahn School of Medicine at

Mount Sinai New York, NY

9/03-12/03 Clinical Instructor, NYU Medical Center, New York, NY

GAPS IN EMPLOYMENT

None

EDUCATION

Premedical and Medical Training

1996-2000 State University of New York Health Science Center at Brooklyn

Brooklyn, NY M.D. (2000)

1991-1995 University of Pennsylvania

Philadelphia, PA

B.A. Anthropology (1995)

Magna cum Laude

Postdoctoral Training

July 2004-June 2006

Fellow, Research Division of Department of Psychiatry

Icahn School of Medicine at Mount Sinai

New York, NY

July 2004- June 2005

Fellow, Consultation-Liaison Psychiatry Service and Department of

Neurology, MS Division

Icahn School of Medicine at Mount Sinai

New York, NY

July 2000-June 2004

Residency in Psychiatry

New York University School of Medicine,

New York, NY

July 2003-June 2004

Training in Brief Psychodynamic Therapy New York University School of Medicine

New York, NY

(Mentor: Manuel Trujillo, MD)

July 2003- June 2004

Fellowship in Family Therapy Ackerman Institute for the Family

New York, NY

CERTIFICATION

Board certified, American Board of Psychiatry and Neurology: October 2006; April 2015 Board certified, Psychosomatic Medicine: April 2008; April 2015

LICENSURE

October, 2003 (initial) New York State Medical License Number: 230321

Renewal 1/31/17 DEA: BF9107980

HONORS/AWARDS

June 2016	New York Magazine, Best Doctors (June 2016)
2016	Castle Connolly Top Doctors
2016	Nomination to Society for Liaison Psychiatry
2010-16	Nomination to the National MS Clinical Advisory Board
2009	Nomination for Institute for Medical Education (IME) Excellence in Teaching Av

2004 Goldman Fellowship in Multiple Sclerosis

2004 Wendy Rives Award for Academic and Clinical Excellence

PATENTS

None

OTHER PROFESSIONAL ROLES

Internal

1/16-Present	Co-Chair, Focus Review Group Department of Psychiatry Icahn School of Medicine at Mount Sinai
1/16-Present	Leader, Behavioral Integration Team Project
11/2015- Present	Member , Pharmacy and Therapeutics Committee Icahn School of Medicine at Mount Sinai
2015-Present	Member, Clinical Competency Committee for Psychosomatic Medicine Fellowship, Department of Psychiatry Icahn School of Medicine at Mount Sinai
2015-Present	Member, Program Evaluation Committee for Psychosomatic Medicine Fellowship, Department of Psychiatry Icahn School of Medicine at Mount Sinai
2014- Present	Member, Senior Management Group Department of Psychiatry Icahn School of Medicine at Mount Sinai
2014- Present	Member, Special Review/Focus Review Committee Department of Psychiatry Icahn School of Medicine at Mount Sinai
2014- Present	Member, Regulatory Committee Department of Psychiatry Icahn School of Medicine at Mount Sinai
2014- Present	Member, Performance Improvement Committee Department of Psychiatry Icahn School of Medicine at Mount Sinai
2013-Present	Member , Clinical Competency Committee for Psychiatry Residency Department of Psychiatry Icahn School of Medicine at Mount Sinai
2009- Present	Member, Ethics Committee Icahn School of Medicine at Mount Sinai
2005-2015	Member, Executive Educational Committee Department of Psychiatry

Icahn School of Medicine at Mount Sinai

2005-2015 **Member,** Resident Selection Committee

Department of Psychiatry

Icahn School of Medicine at Mount Sinai

External

June 2016-Present Member, Society for Liaison Psychiatry

New York, NY

April 2015-Present Mental Health MS Networking Initiative Group, National MS Society,

NY Chapter, New York, NY

2014- Present Member, MS Partners in Care, National MS Society, NY Chapter

New York, NY

2010- Present Member, National MS Clinical Advisory Board, National MS Society,

NY Chapter, New York, NY

GRANTS, CONTRACTS, FOUNDATION SUPPORT

PAST GRANTS

MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis	List Funding Source,	Role in Project	<u>Dates</u>	Supplemental Info
O166-7581 Goldman Fellowship O267-5061 MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis O266-2126 MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis O266-2314 Provided By MS MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis	Project <u>Title &</u>			
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0266-2126 MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis 0266-2314 Provided By MS MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis MS Psychiatric Consultant for Corinne Dickinson Center in Multiple Sclerosis Multiple Sclerosis		Corinne Dickinson Center in	7/14/15	
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Provided By MS Multiple Sclerosis		Corinne Dickinson Center in		
	Provided By MS	Multiple Sclerosis	2013	
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Private Philanthropic Donor and also MS				
Hope Cure for a Cure				
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CURRENT GRANTS

n/a

CLINICAL TRIALS PARTICIPATION

Project	Role in Project	Dates	Other Info
Goldman Algorithm Feasibility Trial	Co-Principal Investigator	5/17/13	National MS Society
PD# 13-0244		<u>3/20/12</u>	
PD# 12-01463 National MS Society			

TEACHING ACTIVITIES

Teaching Activity/Topic	Level	Role	Level and Number of Learners Taught, and Venue	Number of hours	years	Years Taught
Consultation- Liaison Psychiatry Service, MSSM	Departmental Level- Psychiatry	Teaching Attending	Residents, fellows, medical students (5-6 per 4 week block)	15 hrs/week	2004- Present	2004 – present
Consultation- Liaison Psychiatry Service, MSSM: Walk Rounds	Departmental Level- Psychiatry	Director	Residents, fellows, medical students (30 per year)	8 hrs/mo	2008- Present	2005- present
Consultation- Liaison Psychiatry Service MSSM: Morning Rounds	Departmental Level- Psychiatry	Co-Director	4 th year Psychiatry Residents (10- 15)	5 hrs/wk	2008- Present	2008 – present
Psychiatry Fellows Course	Departmental Level- Psychiatry	Lecturer	Fellows (7)	4 hours/yr	2004- Present	2005- Present
Biogen Ethics Seminar	Departmental Level- Neurology	Lecturer	Pharmacoly representatives and students	8hrs/yr	2013- 2015	2013, 2014
Union-Mount Sinai Bioethics Program Practicum	Departmental Level- Department of Bioethics	Lecturer	Bioethics students	2 hrs/yr	2014- 2016	2013, 2014,2015

Corinne Dickinson Center For Multiple for Sclerosis	Departmental Level- Neurology	Lecturer (depression in MS, psychopharmacology in MS)	Nurse practitioners, neurology attendings and fellows, Social workers	6 hrs/year	2004- 2013	2004- 2010
Corinne Dickinson Center For Multiple for Sclerosis; Weekly Rounds	Departmental Level- Neurology	Member	Nurse practitioners, neurology attendings and fellows, Social workers	2/hrs/year	2004- 2006	2004- 2006

ADMINISTRATIVE LEADERSHIP APPOINTMENTS

Clinical/ General Administration:

January 2016-Present

Director, Division of Behavioral Medicine and Consultation

Psychiatry, Department of Psychiatry, Icahn School of Medicine at Mount Sinai

January 2016-Present

Co-Chair, Focus Review Committee, Department of Psychiatry,

Icahn School of Medicine at Mount Sinai

October 2011-January 2012

Acting Director, Division of Behavioral Medicine and

Consultation Psychiatry, Department of Psychiatry,

Icahn School of Medicine at Mount Sinai

January 2008-January 2016

Associate Director, Division of Behavioral Medicine and

Consultation Psychiatry, Department of Psychiatry,

Icahn School of Medicine at Mount Sinai

PUBLICATIONS

Peer Reviewed Original Contributions

Center-Wide Ethics Series: A Case from the Department of Neurology, Stephen Krieger, **Jennifer Finkel** and Nada Gligorov, *The Mount Sinai Journal of Medicine*, 2008

"The Goldman Algorithm" R. Schiffer, P. Arnett, A. Ben-Zacharia, M. Brandis, M.L. Crismon, M. DelBene, A. Feinstein, S. Ferrando, **J. Finkel,** F. Foley, J. Halper, R. Kalb, N. LaRocca, F. Lublin, S. Minden, D. Mohr, S. Patten, The Challenges of Care and Research in Multiple Sclerosis, 5/30/07-6/2/07, Washington, DC (Abstract W30).

Axons, Cells and Depression: The Nexus of Neurology and Psychiatry in Multiple Sclerosis, Jack Gorman and **Jennifer Finkel**, *CNS Spectrums*, Volume 10 (5), May 2005.

Possible Risperidone-Induced Visual Hallucinations, R. Solhkhah, **J. Finkel** and S. Hird, *Journal of the American Academy of Child and Adolescent Psychiatry*, Volume 39, September 2000.

Books and Book Chapters

"Cognitive Behavioral Therapy." J.J. Strain, K. Klipstein, S. Quraishi and **J. Finkel.** <u>Psychosomatic Medicine</u>, Editors: M. Blumenfield and J.J. Strain, Lippincott, Williams and Wilkins, Philadelphia, PA pp. 829-842, 2006.

"Medical Conditions Manifesting as Psychiatric Disorders," Jennifer Blum and **Jennifer Finkel**, On Call Psychiatry Third Edition, Editors: Carol Bernstein, Ze'ev Levin, Molly E. Poag and Mort Rubinstein, Elsevier Inc, January 2006.

"Role of the Psychiatric Consultant," **Jennifer Finkel** and Lauren Kotcher, <u>On Call Psychiatry Third Edition</u>, Editors: Carol Bernstein, Ze'ev Levin, Molly E. Poag and Mort Rubinstein, Elsevier Inc, January 2006.

"Professional and Personal Reactions to September 11, 2001," **Jennifer Finkel,** from <u>Disaster Psychiatry: Intervening When Nightmares Come True</u>, Editors: Anand Pandya and Craig Katz, Analytic Press, April 2004; pp75-84.

INVITED LECTURES/PRESENTATIONS

Finkel, JF "The Difficult Patient: Management of Acute Agitation in the Hospital," Neurology Resident Rounds, Icahn School of Medicine at Mount Sinai, New York, NY, 7/1616

Finkel, JF "The In's and Out's of Capacity" Hospitalist Grand Rounds, Icahn School of Medicine at Mount Sinai, New York, NY, 6/26/16

Finkel, JF "Capacity," Grand Rounds, Coney Island Hospital, Brooklyn, NY, 12/16/15

Finkel, JF "Decision Making Capacity," Center-Wide Ethics Luncheon, Icahn School of Medicine at Mount Sinai, New York, NY, 11/19/15

Finkel, JF "Psychiatric Manifestations of MS," Grand Rounds, Albert Einstein College of Medicine, New York, NY, 1/15/15

- **Finkel, JF "Assessing Capacity,"** Union-Mount Sinai Bioethics Program Practicum, Icahn School of Medicine at Mount Sinai, New York, NY, June 2013, 2014, 2015
- **Finkel, JF** "MS and the Mind," CGD Center 2nd Annual MS Symposium, *Changing the Future: New Trends in Multiple Sclerosis Research and Treatment,* New York, NY, 10/24/11,
- Finkel, JF "The Comprehensive Care Approach to Multiple Sclerosis: Improving Your Patients' Quality of Life." Multiple Sclerosis Medscape CME Program, New York, NY, 12/17/10,
- **Finkel, JF** "Emotional Issues and Multiple Sclerosis," CGD Center MS Symposium *Changing the Future: New Trends in Multiple Sclerosis Research and Treatment,* New York, NY, 10/18/09; (Accessible on youtube) http://www.youtube.com/watch?v=jffJzp4mP8w
- **Finkel, JF** "Dementia," Intensive Update with Board Review in Geriatric and Palliative Medicine, Baruch College, New York, NY, 10/1/07
- **Finkel, JF "Guardianship,"** Schwartz Center, Multidisciplinary Rounds, Icahn School of Medicine at Mount Sinai, New York, NY, 6/14/07
- **Finkel, JF "Behavioral Manifestations of Dementia,"** Geriatrics Department, Icahn School of Medicine at Mount Sinai, New York, NY, February 2007
- Finkel, JF. "Depression and Multiple Sclerosis," Goldman Conference, New York, NY, Fall 2005.

VOLUNTARY PRESENTATIONS

- **Finkel, JF** "Multiple Sclerosis and Depression," National MS Society Partners in Care Networking Call, New York, NY, 9/15/15
- **Finkel, JF** "Depression in Multiple Sclerosis," quarterly presentations at Biogen Seminar, *CGD* Center for MS, Icahn School of Medicine at Mount Sinai New York, NY, 2013, 2014, 2015
- **Finkel, JF** "MS and Your Emotions," MS Seminar at Icahn School of Medicine at Mount Sinai, New York, NY, 10/12, 10/13, 10/14
- **Finkel, JF** "**Depression in Multiple Sclerosis**," Society of Liaison Psychiatry Fellows Day, NYU School of Medicine, New York, NY, April 2014
- Finkel, JF "MS Learn Online Educational Webcast: Interview with Rick Sommers, New York, NY, 9/30/10
- **Finkel, JF** "MS: A Psychiatric Perspective," The Corinne Dickinson Center for Multiple Sclerosis, New York, NY, 5/26/10
- Finkel, JF "MS and Depression," Janet Pearce Nursing Program, New York, NY 3/4/09
- Finkel, JF "Duet for One," Lamb Productions---New York, NY: Panelist, 9/7/08
- **Finkel, JF** "The Unspoken Truth about Depression and MS," The Corinne Dickinson Center for Multiple Sclerosis, New York, NY, 2/27/07

MEDIA RESOURCE EDUCATIONAL MATERIALS

Finkel, JF "Understanding depression in MS," Interview with Meredith Vieira, New York NY, 10/23/15

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Finkel, JF featured and interviewed for: The Disclosure Dilemma: Deciding When and Who to Tell about your MS is a Big Deal, by Andrea Sachs, momentummagazineonline, New York, NY, Summer 2013

Finkel, JF "The Comprehensive Care Approach to Multiple Sclerosis: Improving Your Patients' Quality of Life." Multiple Sclerosis Medscape CME Program, 12/17/10

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Finkel, JF featured in "Innovative Grant Launches New Psychiatric Care Program," MS Interactions, Winter 2009, Edition 4, Volume 5 (1)

Finkel, JF Featured Article in *Inside Mount Sinai*, "Multiple Sclerosis Center Considers Psychological and Neurological Factors" week of 4/9/09

EXHIBIT B

Materials Considered

1992 Player Physical Examination Form, 9/11/92 (LeemanG-Calgary-00001-00012)

1993 Player Physical Examination Form, 9/8/93 (LeemanG-Montreal-00001-00015)

3/28/2011 Letter from Dan LaCouture to Glen Sather (LACOUTURE 00438)

5/31/16 Letter to Judge Nelson, Exhibit C: Report of Robert C. Cantu, M.D. concerning Daniel LaCouture, 4/12/16

5/31/16 Letter to Judge Nelson, Exhibit D: Report of Robert C. Cantu, MD concerning Bernie Nicholls, 4/13/16

5/31/16 Letter to Judge Nelson, Exhibit E: Report of Robert C. Cantu, MD concerning Gary Leeman, 4/11/16

Advanced Professional Imaging Medical Group – Cover Sheet (LeemanG-AdvanProfImagRad-00001)

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Advanced Professional Imaging Medical Group – Medical Records, 4/30/09 (LEEMAN 00541-00561)

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Neuropsychological Evaluation of Reed Larson, 11/17/16, Marc Norman, PhD

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